

Appendix A References

A-1. Required Publications

TM 5-232

Elements of Surveying, Headquarters, Department of the Army

TM 5-235

Special Surveys, Headquarters, Department of the Army

TM 5-818-1/AFM 88-3 (Chapter 7)

Procedures for Foundation Design of Buildings and Other Structures

ER 1110-1-1801

Construction Foundation Report

ER 1110-1-1802

Provision for Spacers to Show Voids and Core Losses in Core Samples and Requirements for Photographic Record of Cores

ER 1110-2-112

Required Visits to Construction Sites by Design Personnel

ER 1110-2-1806

Earthquake Design and Analysis for Corps of Engineers Projects

EP 1110-1-10

Borehole Viewing Systems

EM 385-1-1

Safety and Health Requirements Manual

EM 1110-1-1802

Geophysical Exploration

EM 1110-1-1804

Geotechnical Investigations

EM 1110-1-1904

Settlement Analysis

EM 1110-1-2907

Rock Reinforcement

EM 1110-2-1902

Stability of Earth and Rockfill Dams

EM 1110-2-1907

Soil Sampling

EM 1110-2-1908 (Part 1 of 2)

Instrumentation of Earth and Rockfill Dams (Ground Water and Pore Pressure Observations)

EM 1110-2-1908 (Part 2 of 2)

Instrumentation of Earth and Rockfill Dams (Earth Movement and Pressure Measuring Devices)

EM 1110-2-2200

Gravity Dam Design

EM 1110-2-2502

Retaining and Flood Walls

EM 1110-2-3504

Chemical Grouting

EM 1110-2-3506

Grouting Technology

EM 1110-2-3800

Systematic Drilling and Blasting for Surface Excavations

EM 1110-2-4300

Instrumentation for Concrete Structures

A-2. Related Publications

American Society for Testing and Materials Standard Methods of Test D653

"Standard Terms and Symbols Relating to Soil and Rock," available from American Society for Testing and Materials, 1916 Race St., Philadelphia, PA 19103.

Barton 1974

Barton, N. 1974. "A Review of the Shear Strength of Filled Discontinuities," Norwegian Geotechnical Institute, NR 105, pp. 1-30.

Barton 1983

Barton, N. 1983. "Application of Q-System and Index Tests to Estimate Shear Strength and Deformability of Rock Masses," *Proceedings, International Symposium on Engineering Geology and Underground Construction*, Laboratorio Nacional de Engenharia Civil, Lisbon, Portugal, Vol. II, pp. II.51-II.70.

Barton, Lien, and Lunde 1974

Barton, M., Lien, R., and Lunde, J. 1974. "Engineering

Classification of Rock Masses for the Design of Tunnel Support," *Rock Mechanics*, Vol. 6, No. 4, pp. 183-236.

Bieniawski 1973

Bieniawski, Z. T. 1973. "Engineering Classification of Jointed Rock Masses," *Transactions of the South African Institution of Civil Engineers*, Vol. 15, No. 12, pp. 335-344.

Bieniawski 1978

Bieniawski, Z. T. 1978. "Determining Rock Mass Deformability: Experience from Case Histories." *International Journal of Rock Mechanics and Mining Sciences*, Vol. 15, pp. 237-248.

Bieniawski 1979

Bieniawski, Z. T. 1979. "Tunnel Design by Rock Mass Classifications," Technical Report GL-79-19, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Bishnoi 1968

Bishnoi, B. W. 1968. "Bearing Capacity of Jointed Rock," Ph.D. Thesis, Georgia Institute of Technology.

Bishop 1955

Bishop, A. W. 1955. "The Use of the Slip Circle in the Stability Analysis of Earth Slopes," *Geotechnique*, Vol. 5, pp. 7-17.

Canada Centre for Mineral and Energy Technology 1977a

Canada Centre for Mineral and Energy Technology. 1977. *Pit Slope Manual*. CAMMET Report 77-15, Chapter 5; "Design, Minerals Research Program," Mining Research Laboratories, available from Printing and Publishing Supply and Services, Canada, Ottawa, Canada K1A0S9.

Canada Centre for Mineral and Energy Technology 1977b

Canada Centre for Mineral and Energy Technology. 1977. *Pit Slope Manual*. CAMMET Report 77-15, Chapter 8; "Monitoring, Minerals Research Program," Mining Research Laboratories, available from Printing and Publishing Supply and Services, Canada, Ottawa, Canada K1A0S9.

Chan and Einstein 1981

Chan, H. C., and Einstein, H. H. 1981. "Approach to Complete Limit Equilibrium Analysis for Rock Wedges - The Method of Artificial Supports," *Rock Mechanics*, Vol. 14, No. 2.

Cundall 1980

Cundall, P. A. 1980. "UDEC - A Generalized Distinct Element Program for Modeling Jointed Rock," European Research Office, U.S. Army, AD A087 610.

Deere 1964

Deere, D. U. 1964. "Technical Description of Rock Cores for Engineering Purposes," *Rock Mechanics and Engineering Geology*, Vol. 1, No. 1, pp. 17-22.

Deere et al. 1967

Deere, D. U. et al. 1967. "Design of Surface and Near-Surface Construction in Rock," *Proceedings of the Eighth Symposium on Rock Mechanics* (ed. Fairhurst, C.), American Institute of Mining, Metallurgical and Petroleum Engineers, pp. 237-302.

Deere and Deere 1989

Deere, D. U., and Deere, D. W. 1989. "Rock Quality Designation (RQD) After Twenty Years," Technical Report GL-89-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS 39180.

Deere and Patton 1971

Deere, D. U., and Patton, F. D. 1971. "Slope Stability in Residual Soils," *Fourth Panamerican Conference on Soil Mechanics and Foundation Engineering*, American Society of Civil Engineers, pp. 87-170.

Deere, Merritt, and Coon 1969

Deere, D. U., Merritt, A. H., and Coon, R. F. 1969. "Engineering Classification of In-Situ Rock," Technical Report No. AFWL-TR-67-144, Kirtland Air Force Base, New Mexico, 280 pp. Available from the U.S. Department of Commerce, NTIS, Springfield, VA, Pub. No. AD. 848 798.

Dickinson 1988

Dickinson, R. M. 1988. "Review of Consolidation Grouting of Rock Masses and Methods for Evaluation," U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Dowding 1985

Dowding, C. H. 1985. *Blast Vibration Monitoring and Control*, Prentice-Hall, Englewood Cliffs, NJ.

Dunnicliff 1988

Dunnicliff, J. 1988. *Geotechnical Instrumentation for Monitoring Field Performance*, Wiley and Sons, NY.

DuPont de Nemours 1977

DuPont de Nemours (E. I.) and Co., Inc. 1977. *Blaster's Handbook*, Wilmington, DE.

Farmer 1983

Farmer, I. 1983. *Engineering Behavior of Rocks*, Chapman and Hall, NY.

Goodman 1976

Goodman, R. E. 1976. *Methods of Geological Engineering in Discontinuous Rock*, West Publishing Company, St. Paul, MN.

Goodman 1980

Goodman, R. E. 1980. *Methods of Geological Engineering in Discontinuous Rock*, Wiley and Sons, NY.

Goodman and Shi 1985

Goodman, R. E., and Shi, G. 1985. *Block Theory and its Application to Rock Engineering*, Prentice-Hall, Inc., Englewood Cliffs, NJ.

Hanna 1973

Hanna, T. H. 1973. *Foundation Instrumentation*, Trans Tech Publications, Cleveland, OH.

Hendron, Cording, and Aiyer 1980

Hendron, A. J., Cording, E. J., and Aiyer, A. K. 1980. "Analytical and Graphical Methods for the Analysis of Slopes in Rock Masses," Technical Report GL-80-2, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Hobst and Zajic 1977

Hobst, L., and Zajic, J. 1977. "Anchoring in Rock," *Developments in Geotechnical Engineering 13*, Elsevier Scientific Publishing Company, NY.

Hoek and Bray 1974

Hoek, E., and Bray, J. W. 1974. "Rock Slope Engineering," The Institution of Mining and Metallurgy, London, England.

Hoek and Bray 1981

Hoek, E., and Bray, J. W. 1981. "Rock Slope Engineering," The Institution of Mining and Metallurgy, London, England.

Hoek and Brown 1980

Hoek, E., and Brown, E. T. 1980. "Empirical Strength Criterion for Rock Masses," *Journal of Geotechnical Engineering*, American Society of Civil Engineers, Vol. 106, No. GT9, pp. 1013-1035.

Janbu 1954

Janbu, N. 1954. "Application of Composite Slip Surfaces for Stability Analysis," *Proceeding of the European Conference on Stability of Earth Slopes*, Sweden, Vol. 3, pp. 43-49.

Janbu 1973

Janbu, N. 1973. "Slope Stability Computations," *Embankment Dam Engineering, The Casagrande Volume*, Wiley and Sons, NY, pp. 47-86.

Janbu, Bjerrum, and Kjaernsli 1956

Janbu, N., Bjerrum, L., and Kjaernsli, B. 1956. "Veiledning Ved Løsning av Funderingsoppgaver," (Soil Mechanics Applied to Some Engineering Problems), in Norwegian with English Summary, Norwegian Geotechnical Institute Publication No. 16, Oslo.

Johnson 1989

Johnson, L. D. 1989. "Design and Construction of Mat Foundations," Miscellaneous Paper GL-89-27, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Katzir and David 1968

Katzir, M., and David, P. 1968. "Foundations in Expansive Marls," *Proceedings, 2nd International Research in Engineering Conference on Expansive Clay Soils*, University of Texas.

Kovari and Fritz 1989

Kovari, K., and Fritz, P. 1989. "Re-evaluation of the Sliding Stability of Concrete Structures on Rock with Emphasis on European Experience," Technical Report REMR-GT-12, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Kulhawy and Goodman 1980

Kulhawy, F. H., and Goodman, R. E. 1980. "Design of Foundations on Discontinuous Rock," *Proceedings of the International Conference on Structural Foundations on Rock*, International Society for Rock Mechanics, Vol. I, pp. 209-220.

Lama and Vutukuri 1978

Lama, R. D., and Vutukuri, V. S. 1978. "Handbook on Mechanical Properties of Rocks," *Testing Techniques and Results - Vol. III, No. 2*, Trans Tech Publications, (International Standard Book Number 0-87849-022-1, Clausthal, Germany).

Lambe and Whitman 1969

Lambe, T. W., and Whitman, R. V. 1969. *Soil Mechanics*, Wiley and Sons, NY.

Lauffer 1958

Lauffer, H. 1958. "Gebirgsklassifizierung fur den Stollenbau," *Geologie und Bauwesen*, Vol. 24, No. 1, pp. 46-51.

Linder 1976

Linder, E. 1976. "Swelling Rock: A Review," *Rock Engineering for Foundations and Slopes*, American Society of Civil Engineers Specialty Conference, Boulder, CO, Vol. 1, pp. 141-181.

Littlejohn 1977

Littlejohn, G. S. 1977. "Rock Anchors: State-of-the-Art," Ground Engineering, Foundation Publications Ltd., Essex, England.

Littlejohn and Bruce 1975

Littlejohn, G.S. and Bruce, D.A. 1975. "Rock Anchors: State-of-the-Art Part I, Design," *Ground Engineering*, Foundation Publications Ltd., Essex, England.

Morgenstern and Price 1965

Morgenstern, N. R., and Price, V. E. 1965. "The Analysis of the Stability of General Slip Surfaces," *Geotechnique*, Vol. 15, pp. 79-93.

Murphy 1985

Murphy, William L. 1985. "Geotechnical Descriptions of Rock and Rock Masses," Technical Report GL-85-3, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS 39180.

Naval Facilities Engineering Command 1982

Naval Facilities Engineering Command. 1982. "Soil Mechanics Design Manual 7.1. NAVFAC DM-7.1," Department of the Navy, Alexandria, VA.

Nicholson 1983a

Nicholson, G. A. 1983a. "Design of Gravity Dams and Rock Foundations: Sliding Stability Assessment by Limit Equilibrium and Selection of Shear Strength Parameters," Technical Report GL-83-13, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS 39180.

Nicholson 1983b

Nicholson, G. A. 1983b. "In-Situ and Laboratory Shear Devices for Rock: A Comparison," Technical Report GL-83-14, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS 39180.

Peck, Hanson, and Thornburn 1974

Peck, R. B., Hanson, W. E., and Thornburn, T. H. 1974. *Foundation Engineering*, 2nd ed., Wiley and Sons, NY.

Poulos and Davis 1974

Poulos, H. G., and Davis, E. H. 1974. *Elastic Solutions for Soil and Rock Mechanics*, Wiley and Sons, NY.

Pratt et al. 1972

Pratt, H. R., et al. 1972. "The Effect of Specimen Size on the Mechanical Properties of Unjointed Diorite," *International Journal of Rock Mechanics and Mining Sciences and Geomechanics Abstracts*, Vol. 9, No. 4, pp. 513-529.

Priest 1985

Priest, S. D. 1985. *Hemispherical Projection Methods in Rock Mechanics*, George Allen and Unwin (Publishers), Ltd., London England.

Rock Testing Handbook 1990

Rock Testing Handbook. 1990. Available from Technical Information Center, U.S. Army Engineer Waterways Experiment Station, 3909 Halls Ferry Road, Vicksburg, MS.

Serafim and Pereira 1983

Serafim, J. L., and Pereira, J. P. 1983. "Considerations of the Geomechanics Classification of Bieniawski," *Proceedings, International Symposium on Engineering Geology and Underground Construction*, LNEC, Lisbon, Portugal, Vol. 1, pp. II.33-II.42.

Sarma 1979

Sarma, S. K. 1979. "Stability Analysis of Embankments and Slopes," *Journal of the Geotechnical Engineering Division*, American Society of Civil Engineers, ASCE, Vol. 105, No. GT 12, pp. 1511-1524.

Sowers 1979

Sowers, G. F. 1979. *Introductory Soil Mechanics and Foundations: Geotechnical Engineering*, 4th ed., McMillan, NY.

Templeton 1984

Templeton, A. E. 1984. "User's Guide: Computer Program for Determining Induced Stresses and Consolidation Settlement (CSETT)," Instruction Report K-84-7, U.S. Army Engineer District, Vicksburg, MS.